THE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT CORRIDOR STUDY: A CASE STUDY IN THE COMPILATION OF SURFACE WATER RELATED DATASETS FROM MULTIPLE LOCAL, STATE, AND FEDERAL AGENCIES.

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Abstract

The U.S. Geological Survey is in the process of compiling data sets from various local, state, and Federal agencies for the purpose of providing a centralized database of water chemistry, macroinvertebrate, fish, habitat, and GIS information for stream corridors in proximity to Milwaukee County, Wisconsin controlled by the Milwaukee Metropolitan Sewerage District (MMSD). Combining data sets from agencies that follow different data management procedures as well as data collection methods that differ within an agency create challenges to providing a coherent data warehouse that accurately maintains the integrity of each individual database. Many of the Water-Quality Data Elements from the list compiled by the National Methods Comparability Board and the National Water-Quality Monitoring Council were incorporated into the design of the data warehouse to best enable users to confidently compare surface water datasets from one agency to another. However collecting the pertinent information for all data sets from each agency has proven challenging. In particular, identification of sampling site locations, comparison of constituents, and documentation of field collection and lab analysis methods are most troublesome. Difficulties encountered while compiling the MMSD Corridor study database demonstrate the need for agencies to document their data sets covering the "Who, What, Where, When, Why and How" as explained in the Water-Quality Data Elements for their own benefit as well as others who may want to compare data sets.